APPENDIX H
MCO INFORMATION SYSTEM REVIEW
STRUCTURED INTERVIEW GUIDE

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MCO: _____

Location: _____

Model Type: HMO-Group HMO-Staff HMO-IPA HMO-Mixed Other_____

Interviewees (Name & Title): _____

_____

_____

_____

_____

Interviewers: _____

_____

Date of Interview: _____

This guide is designed to assist State Medicaid agencies in determining whether a MCO's information systems are strong enough to support (1) the reporting requirements specified in the State's RFP, and (2) the types of quality and access studies that may need to be performed. Bear in mind that not all questions will be relevant to all States, and that some questions may need to be reworded for newly-formed MCOs. Furthermore, this is designed to be an interactive interview guide, not a questionnaire for the MCO to fill out. There is enormous value in sitting face-to-face with MCO staff and addressing the questions posed below. First, State staff will quickly see the value of activities such as claims walkthroughs (described in Section II), which provide the opportunity to learn "hands-on" about the challenges of managed care information collection and reporting. Second, together, State and MCO staff can identify priority areas for improvement, and set performance targets for those areas.

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I. INFORMATION SYSTEMS, DATA PROCESSING PROCEDURES & PERSONNEL

The State and the MCO should be certain that data being reported are not only accurate today, but also have a reasonable chance of being accurate for future reporting periods. Future accuracy can be predicted by assessing the MCO's systems development cycle and supporting environment; Plans that lack development checkpoints and controls are much more likely to introduce errors as systems change. The following criteria can be used to subjectively assess the likelihood of future reporting anomalies. States should be informed that very few programming shops in the world really meet all the desirable criteria.

I-1. What data base management systems (DBMS) does your organization use to store claims and encounter data?

I-2. How would you characterize this DBMS?

Relational
Network
Hierarchical
Flat file
Indexed
Proprietary
Other
Don't Know

[Knowing the DBMS provides an indication of the organization's overall level of sophistication. Typical responses would include Oracle, DB2, VTAM, Paradox, dBase, R:base, Sybase, Informix, SAS, Rdb, etc.]

I-3. What DBMS, if any, do you extract relevant encounter/claims/enrollment detail into for analytic reporting purposes?

I-4. How would you characterize this DBMS?

Relational
Network
Hierarchical
Flat file
Indexed
Proprietary
Other
Don't Know

[These questions will provide an indicator of how the process works. Note that it is possible that reports are generated directly from the incidence database without any intermediate extraction.]

I-5. What programming language(s) do your programmers use to create data extracts or analytic reports? How many programmers are trained and capable of modifying these programs?

[This question will provide an indication of the level of backup available should the primary programmers fall prey to the proverbial truck. For example, many more Cobol programmers are available on the market than for Smalltalk.]

I-6. Do you calculate defect rates for programs? If so, what method(s) do you use?

I-7. Do you rely on any quantitative measures of programmer performance? If so, what method(s) do you use?

[Methods to calculate defect rates and productivity measures are indicators of the IS organization's level of sophistication. Very few firms calculate either of these very well today, if at all. Typical methods would include Lines of Code (LoC), Pages of code, ratio of severe bugs to all bugs found, or Function Points (FP).]

I-8. Approximately what percentage of your organization's programming work is outsourced?

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I-9. What is the average experience, in years, of programmers in your organization?

I-10. Approximately how much is spent on training per programmer per year? What is the programmer turnover rate for each of the last 3 years?

[*These questions attempt to determine the stability and expertise of the IS department. Answers to these questions can provide additional insight into the development cycle responses. Outsourcing means using non-employees to get the work done, sometimes off-site, in which case project specification, management, coordination and acceptance become key success factors. Ask for a guess if the turnover rate is unknown. However, not knowing the rate is an indicator of higher-than-usual turnover.****]***

I-11. Outline the steps of the maintenance cycle for the [specify State-mandated reporting requirement(s)]. Include any tasks related to documentation, debugging, roll out, training, etc. The level of detail should result in 10-25 steps in the outline.

I-12. What is the process for version control when code is revised?

[The IS department should follow a standardized process when updating and revising code. This process should include safeguards which ensure that the correct version of a program is in use.]

I-13. How does your organization know if changes to the claims/encounter/enrollment tracking system impact required reporting to the State Medicaid program? What motivates you to update the program?

[A specific individual within the organization should be responsible for determining the impact of any changes made to the plan's claims/encounter/enrollment tracking systems. The plan should have in place a system for triggering IS staff to update the programs.]

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II. CLAIMS/ENCOUNTER PROCESSING

II-1. Please identify all systems through which data for the Medicaid population are processed.

II-2. Please describe any major systems changes/updates that have taken place in the last three years in your claims or encounter system (*be sure to get specific dates on which changes were implemented)*:

- New system purchased and installed to replace old system
- New system purchased and installed to replace most of old system: old system still used
- Major enhancements to old system (what kinds of enhancements?)
- New product line adjudicated on old system
- Conversion of a product line from one system to another

[When a plan undertakes any major system changes such as conversion to a new system, the system changes could impact on data quality. Data quality problems include corruption of data, loss of data, and loss of the level of detail within the data. The implementation of a new system can also affect the accessibility of historical data.]

II-3. In your opinion, have any of these changes influenced the quality and/or completeness of the data that are collected, even temporarily? If so, how and when?

[System conversions could affect the quality or completeness of encounter data the plan submits to the State. A temporary decrease in data quality could be a sign of a more serious undiscovered problem.]

II-4. How many years of data are retained on-line?

[Due to system constraints, a plan may remove historical data and place it in off-line storage. The plan's ability to report on experience spanning several years of data could be impacted by the accessibility of the data stored off-line.]

II-5. How much is processed on-line vs. batch? If batch, how often are they run?

[Data which are processed on-line will be incorporated into the system on a real-time basis. If batch processing is not conducted frequently, it can result in data processing lags which affect data completeness.]

II-6. How complete are the data three months after the close of the reporting period?

[The completeness of data three months after the close of the reporting period can vary greatly by plan. A plan's contracting arrangements with providers can affect data completeness. Plans who delegate provider payment or data collection to medical groups or IPAs are less likely to have complete data three months after the reporting period ends.]

II-7. What is your policy regarding claim/encounter audits? Are encounters audited regularly? Randomly? What are the standards regarding timeliness of processing?

[Plans should be performing random periodic audits of their encounter data to determine the quality of data processing. Plans who do not perform audits at least annually are not closely monitoring the quality of data processing. Plan standards regarding timeliness of processing will influence the lag time for encounter data processing.]

II-8. Please provide detail on system edits that are targeted to field content, consistency. Are diagnostic and procedure codes edited for validity?

[Plans should have an established, standard set of edits which verify field content and consistency. For example, a field content data edit would be verifying that a valid date is entered into the date of service field. Key fields which should be edited include patient identifying information (ssn, name, date of birth, sex), provider identifying information (name, taxid, type), date and place of service, and diagnosis and procedure codes. The quality of diagnosis and procedure coding will affect the validity of reports and performance measures submitted by the plan.]

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II-9. Please provide information on claims, encounters, other administrative data:

- % each comprises of total service volume
- % complete
- how do you quantify the above statistics
- incentives for data submission

[Plans with claims data comprising more than 50 percent of their total service volume are likely to have a more complete representation of total plan experience than plans relying heavily on encounter data. While providers have an incentive to submit claims in order to receive payment for services, they do not always have incentives to submit encounter information. If a plan does not offer providers an incentive or does not require the submission of encounter data, the plan may not receive data for every encounter. Other administrative data collected by a plan could include data from pharmacy or laboratory vendors.]

II-10. Describe the claims/encounter pend process including timeliness of reconciling pended services.

[Pended claims/encounters have been suspended during processing because they failed data quality edits or violated provider payment parameters. Information on these claims and encounters will not be available for reporting until they have been reconciled and processed into the system. What percentage of claims are suspended or pended?]

II-11. If any services/providers are capitated, have you performed studies on the completeness of the information collected on capitated services? If yes, what were the results?

[Since provider payment for capitated services is not determined by the encounter data submitted, providers do not have an incentive to submit complete and accurate information on every service provided. Data on capitated services often does not include the same level of detail as fee-for-service claims information. Plans should be aware that capitated data is less complete and should audit the data at least annually to monitor its quality.]

II-12. CLAIM/ENCOUNTER SYSTEM DEMONSTRATION

[The claim/encounter system demonstration should include a walk-through of the processing of a specific claim from the beginning to the end of the process. Following a claim through the system will assist the State in determining how specific processing situations are handled by the plan and the effect of processing decisions on data quality.]

a. Identify the system(s) you are reviewing for each product line offered to Medicaid enrollees:

Product Line: _____

Systems used to process:

Fee for service (indemnity) claims _____

Capitated service encounters _____

Clinic patient registrations _____

Pharmacy claims _____

Other (describe) _____

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Product Line: _____

Systems used to process:

Fee for service (indemnity) claims _____

Capitated service encounters _____

Clinic patient registrations _____

Pharmacy claims _____

Other (describe) _____

b. If multiple systems are used to process claims for a single product line, document how claims/encounters are ultimately merged into account-specific files -- and on which platform? Note which merges or data transfers or downloads are automated and which rely on manual processes.

[When data are merged across multiple systems, records or data elements can be altered or lost during the conversion and integration processes. Multiple conversions, integrations, and the use of manual processes will increase the probability of an error occurring.]

Are these merges and/or transfers performed in batch? With what frequency?

[Batch processes that are not timely can result in data processing lags which affect the completeness of data after the close of the reporting period.]

c. Beginning with receipt of claim in-house, walk through the claim handling, logging and processes that precede adjudication. When are claims assigned a document control number and logged or scanned into the system? When are claims microfilmed? If there is a delay in microfilming, how do processors access a claim that is logged into the system, but is not yet filmed?

d. Please provide a detailed description of each system or process that is involved in adjudicating:

- A professional encounter(s) for a capitated service (e.g., child immunizations that arrive separately from the office visit.)

- A hospital claim for a delivery or for a newborn who exceeds its mother's stay.

- Other sample claims that may be on hand during the demonstration.

[Professional encounters arriving separately from an office visit may not be processed as quickly as the actual office visits. If these encounters are treated as "non-standard" events, the plan may not be able to easily link these encounters with the related office visit. Newborns exceeding a mother's stay may have their hospital stay split into two parts. The part of the stay which coincides with the mother's hospitalization may be processed on the mother's claim and the remainder of the stay could be processed separately. Processing the newborn's stay as two separate claims could affect the plan's ability to report accurately on newborn hospital utilization.]

e. Discuss which decisions in processing a claim/encounter are automated, which are prompted by automated messages appearing on the screen, and which are manual. Document the opportunities a processor has for overriding the system manually. Note if there is a report documenting overrides or "exceptions" generated on each processor and reviewed by the claim supervisor.

[If processors have the ability to override the system manually they may be able to force claims/encounters with missing information through the system. For example, a processor may be able to fill in missing diagnosis or procedure codes. Processors could also use override codes such as "99999" or "00000" to fill in for missing codes. If the system does not "kick-out" these override codes during processing, the services will be retained in the system without diagnosis or procedure detail. Processors may also be able to substitute "000000000" for a missing SSN, which can lead to services for unidentified members existing on the system.]

f. Are there any outside parties or contractors used to complete adjudication, including but not limited to:

- Bill auditors (hospital claims, claims over a certain $ amount)
- Peer or medical reviewers
- Sources for additional charge data (Usual & Customary)
- Bill "repricing" for carved out benefits (mental health, substance abuse)

[If outside parties are used, the plan should be incorporating data generated by those parties into the system. The data should first be run through the plan's data quality checks to verify its accuracy and completeness.]

g. Describe the systems' editing capabilities that assure that claims are adjudicated correctly. Provide a list of the specific edits that are performed on claims as they are adjudicated, and note whether the edits are performed pre- or post-payment; which are manual and which are automated functions.

[When reviewing plan adjudication edits, the State should concentrate on edits which affect the data fields that are used to generate plan performance measures and reports. Are outliers for length of stay and charges edited? Utilizing an automated editing process provides more consistent results that do not require processor judgment. Edits that are performed pre-payment can prevent invalid data from being incorporated into the system.]

h. Discuss the routine and non-routine (ad hoc or special) audits that are performed on claims/encounters to assure the quality and accuracy and timeliness of processing. Note which audits are performed per processor, which rely on targeted samples, and which use random sampling techniques. What is the total percentage of claims on-hand that are audited through these QA processes? How frequently? Request a copy or view working material from an audit in progress.

[When reviewing edits that are targeted at determining processor accuracy, consider that these edits will not provide information on the quality of the initial provider data submission. The audit plan should include random sampling techniques to provide an overall picture of quality. Plans will often concentrate on auditing complicated or aberrant claims/encounters rather than using a random sample. The plan should have instituted a process for sharing audit results with the processor to facilitate quality improvement..]

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i. Please describe how provider directories are updated, how frequently and who has "change" authority.

[Provider directories should be updated to reflect changes in provider status to prevent members from selecting providers no longer under contract with the plan. The plan should have adequate security procedures in place to restrict the number of individuals who can access confidential provider information and institute changes in status.]

j. Please describe how eligibility files are updated, how frequently and who has "change" authority. Does this vary by customer? By product line? How and when does eligibility verification take place?

[The plan should add new members to the system within a reasonable amount of time after they have enrolled. Members should not be experiencing delays in access to care due to plan enrollment processes. The plan may be using a different enrollment process for Medicaid beneficiaries than for members with commercial coverage.]

k. How are fee schedules and provider compensation rules maintained? Who has updating authority?

[Since providers consider fee schedule and compensation information to be confidential, access to this information should be restricted by the plan. The plan should have a standardized process for updating and maintaining this information.]

l. Are fee schedules and contractual payment terms automated? Is payment against the schedules automated for all types of participating providers?

[Manual payment processes are more prone to error and reduce processing speed.]

m. What message appears and how are encounters for capitated services handled by payment functions?

[If no message appears to notify processors that they are handling a capitated service, these services could be processed incorrectly. Payment functions can be suspended or modified to handle capitated services. The plan should explain how capitated services are processed and how processing affects data quality.]

n. Describe how your systems and procedures handle validation and payment of claims when procedure codes are not provided.

[Plans requiring valid procedure coding for all claims/encounters will have more detailed data available for reporting and analysis. However, these plans may allow processors to supply missing codes using a codebook or override the system using an un-specified code. A number of plans use programs such as the GMIS AutoCoder product to fill in missing codes. When a plan supplies missing codes, the coding can be less accurate than codes supplied directly by the provider of service.]

o. Describe how claims are pended for medical review, for non approval due to missing authorization code(s) or for other reasons. What triggers a processor to follow up on pended claims? How frequent are these triggers?

[Review and processing should not be handled by the same employee. A system should be in place which encourages the processor to follow-up on the status of claims in review that have not yet been approved to ensure they are resolved.]

p. Where does the system generated output (EOBs, letters, etc.) reside? In-house? In a separate facility? If located elsewhere, how is such work tracked and accounted for?

[Plans that have delegated the production of EOBs, letters and other output should monitor the accuracy and timeliness of those activities.]

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II-13. Performance

a. Describe all performance standards for claims/encounters processing and recent actual performance results.

[Plans should be closely monitoring the performance of their claims/encounter processing departments and be able to provide data on actual results. Performance standards should target both speed and accuracy.]

b. Describe processor-specific performance goals and supervision of actual vs. target performance. Do processors have to meet goals for processing speed? Do they have to meet goals for accuracy?

c. How is performance against targets figured into the official performance appraisal process? Into processor and supervisor compensation?

[Processors should be judged and compensated on a combination of speed and accuracy. If processors are encouraged to work as quickly as possible, questionable or incomplete claims/encounters may be forced through the system affecting data quality.]

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II-14. Staffing

a. Describe the data processing organization in terms of staffing and their expected productivity goals. What is the overall daily and monthly and annual productivity of overall department and by processor?

[Unusually high productivity goals can affect the accuracy and quality of a processor's work.]

b. Describe processor training from new hire to refresher courses for seasoned processors.

[New hires should be provided with on-the-job training and supervision. Supervisors should closely audit the work of new hires before suspending the training process. Seasoned processors should be given occasional refresher courses and training concerning any system modifications.]

c. What is the average tenure of the staff? What is annual turnover?

[A large number of new employees or high turn-over of experienced staff could result in decreased accuracy and processing speed.]

II-15. Security

a. Describe how loss of claim and encounter and other related data is prevented when systems fail?

[System back-ups should be performed daily (at a minimum) to prevent against data loss. Back-up data should be stored on separate systems or tape, diskettes or DAT, and stored in a separate location in case of fire, flood, etc.]

b. How is data corruption prevented due to system failure or to program error?

[A back-up procedure will protect the data from destruction due to system failure and program error. Plans can also institute additional safeguards to protect data from being written over during these processes.]

c. Describe the controls used to assure all claims data entered into the system is fully accounted for (e.g., batch control sheets).

[The plan should have a process in place which ensures that all claims/encounters which have been logged as received are entered into the system and processed.]

d. Describe the provisions in place for physical security of the computer system and manual files:

- Premises
- Documents
- Computer facilities

- Terminal access and levels of security

[The system should be protected from both unauthorized usage and accidental damage. Paper based claims/encounters should be in locked storage facilities when not in use. The computer system and terminals should be protected from unauthorized access using a password system and security screens. Passwords should be given only to employees who need daily access to the files. Passwords should be changed frequently and should be re-set whenever an employee terminates.]

e. What other individuals have access to the computer system? Customers? Providers? Describe their access and the security that is maintained restricting or controlling such access.

[Both customers and providers should have their access limited to read-only so that they cannot alter any files. They should be given access to only those files containing their own patients or members. Customers should be prevented from accessing highly confidential patient information by being given "blinded" patient names and "scrambled" id numbers, or restricted access to particular files.]

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III. ENROLLMENT SYSTEM

III-1. Please identify all enrollment systems from which claims/encounters for this product line are verified.

[Eligibility of the patient should be verified before claims and encounters are processed. Dates of enrollment and disenrollment are key reporting fields for Medicaid HEDIS measures. Eligibility status for Medicaid recipients is dynamic and should be updated frequently. Eligibility status should also be verified before data is submitted to the State].

III-2. Please describe any major systems changes/updates that have taken place in the last three years in your enrollment system (*be sure to get specific dates on which changes were implemented)*:

- New enrollment system purchased and installed to replace old system
- New enrollment system purchased and installed to replace most of old system - old system still used
- Major enhancements to old system (what kinds of enhancements?)
- New product line members stored on old system

[Changes to a plan's enrollment system requiring data conversion and data integration can create data quality problems. Implementing a new enrollment system could lead to a loss of access to data on the old system, or the assignment of new member numbers for all enrollees. Data conversion and integration can also limit a plan's ability to track a member's enrollment history. When a new product line is added to an existing system, a plan may need to make the new data fit the older process, therefore modifying the system to "handle" new information. Implementing such modifications can be difficult for a plan that has been using the same system for a number of years. The level of enrollment detail retained can be affected by such modifications.]

III-3. In your opinion, have any of these changes influenced the quality and/or completeness of the data that are collected, even temporarily? If so, how and when?

[Consider whether changes in data quality will affect the validity of the data submitted to the State].

III-4. How often is enrollment information updated?

[Enrollment information should be updated real-time, daily, or weekly.]

III-5. Medicaid recipients change eligibility status far more frequently that privately insured enrollees. How does the enrollment system handle an individual who enrolls in Month 1, disenrolls in Month 7, and reenrolls in Month 11?

[If an individual is assigned a new id number each time they re-enroll, it will be difficult to track their eligibility experience over time and verify their current status.]

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IV. ANCILLARY SYSTEMS

Use this section to record information on stand-alone systems or benefit carveouts, such as pharmacy or mental health/substance abuse.

IV-1. Please itemize carve out benefits that are adjudicated through a separate system that belongs to a vendor.

[Many plans carve-out services for pharmacy benefits management, mental health/substance abuse, laboratory and radiology services. If the data are processed on the vendor's system, it may not be forwarded to the plan in a complete form or on a timely basis. Vendors may also use a different method of processing resulting in data that will not merge with or complement plan data.]

IV-2. Describe the kinds of information sources available to the plan (e.g., monthly hardcopy reports, full claims data).

IV-3. Do you evaluate the quality of this information? If so, how?

[All of the vendor information should be verified for accuracy before a plan loads it into their IS. The plan and the vendor may not define variables consistently or use the same reporting format.]

IV-4. Did you incorporate these data into the creation of Medicaid-related studies? If not, why not?